

REMARKS

The Applicant has very carefully reviewed and considered the remarks of the Office presented in the Office Action of 24 February 2005. The Applicant now respectfully requests the Office to reconsider the present rejections of the claims based upon these additional remarks.

It is clear that a prima facie case of obviousness has not been established.

The Applicant fully understands that *In re Boesch*, 617 F.2d 272, 205 UPSQ 215 (CCPA 1980), stands for the concept that discovering an optimum value of a result effective variable involves only routine skill in the art. However, the Applicant respectfully requests that the Office reconsider Applicant's previous arguments as it is clear that the concept of "optimization" defined in *Boesch* relates strictly to the situation where the prior art actually teaches a constituent range overlapping that claimed in the patent application in issue (see pages 218 and 219 of the *Boesch* decision). That is different from the present situation wherein the cited prior art, U.S. Patent 3,622,445 to Heidweiller and U.S. Patent 5,935,879 to Helwig et al., both explicitly teach a range outside the range explicitly set forth in claim 1.

In the Applicant's previous response, this distinction between the present situation and the situation before the Court in the *In re Boesch* decision was clearly set forth. Despite this, the Office maintains reliance upon the *In re Boesch*

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decision to support the final rejection but at the same time fails to comment in any manner on Applicant's arguments.

The significance of the distinction should not be overlooked by the Office. By ignoring this limitation clearly set forth by the court in the *Boesch* decision, the Office has extended this holding well beyond its intended scope and has effectively completed an "end run" of other relevant case law which clearly establishes that the Office's rejections in this case are improper and should be withdrawn.

There is absolutely no question that this case is not one of simple optimization. The Office has already acknowledged on the record that "... Heidweiller discloses the claimed invention except for that the glass fibers are present in the weight of about 10 to less than 50% as required by claim 1...." Significantly, the Heidweiller patent issued in 1971, almost 34 years ago. It seems logical to conclude that the passage of 34 years leading to the development of the present invention is a strong indication that the present invention was not an obvious offshoot of that taught in the Heidweiller patent.

As set forth on page 12 of the latest Office Action, "[t]he Office acknowledges that Heidweiller and Helwig both teach the use of 50% or more of glass fibers." This is clearly outside of the "10 to less than 50% by weight" range set forth in independent claims 1, 22 and 24 of the present application. In essence, the applied art suggests that Heidweiller set the "industry standard" for glass fiber

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content in reinforcing mat products at greater than 50% back in 1971. Helwig et al. filed for protection in 1996 and was guided by and followed this industry standard of greater than 50% glass fibers. The combination of references applied by the Office suggests that the provision of greater than 50% glass fibers has, in fact, been the industry standard up until the development of the present invention over 30 years later. The Office now argues that the present invention, which represents a change in course after 30 years of product development, is obvious.

In formulating the rejection, the Office has improperly relied upon the *In re Boesch* decision, the Office has ignored a line of cases including *In re Fine*, 5 USPQ 2d 1596 (Fed. Cir. 1988); *In re Geiger*, 2 USPQ 2d 1276 (Fed. Cir. 1987); and *In re Goodwin*, 198 USPQ 1 (CCPA 1978), stating “whether a particular combination might be ‘obvious to try’ is not a legitimate test of patentability”. More specifically, page 5 of the Office Action the Office states that,

... the combined total of polyvinyl alcohol and secondary binder in the web, the amount of PET fibers, the amount of glass fibers and the diameter of the PET fiber are result effective variables. As the amount of the binder increases, the mat increases in strength and dimensional stability. As the amount of glass fibers increase, the compressive strength increases. As the amount of polyethylene terephthalate fibers increase, the tear strength increases. As the polyethylene terephthalate fiber diameter increases, the fiber becomes stronger and as the diameter decreases, the fiber becomes more pliable and softer to the touch.

It has been established by multiple court decisions that “obvious to try” is not a proper basis for the rejection of any patent claim.

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Further, it is significant to note that the Office has, in effect, failed to consider the invention as a whole by selectively picking and choosing various elements and/or concepts individually as done in the quoted passage in order to arrive at the claimed invention. Such an approach is clearly improper (see, MPEP 2144 and, *Ex parte Clapp*, 227 USPQ 972 (Bd. Pat. App. & Int. 1985).

Claim 1 very clearly patentably distinguishes over U.S. Patent 3,622,445 to Heidweiller. Claim 1 reads on a wet-laid nonwoven reinforcing mat and explicitly recites a base web including about 10 to less than 50 percent by weight glass fibers. The Heidweiller patent explicitly teaches that a web must include 50% or more glass fibers. That teaching diverges from and teaches away from the present invention and, therefore, supports the patentability of claim 1. See *In re Fine*, 5 USPQ 2d 1596, 1599 (Fed. Cir. 1988). Since the decision in *In re Boesch* only relates to the situation where the claimed range overlaps the range explicitly taught in the prior art, the *Boesch* decision is irrelevant to the present fact pattern and any reliance on that decision is improper.

The passage of over 30 years from the issuance of the Heidweiller patent to the development of the present invention provides strong evidence of the unobviousness of the present invention as set forth in claim 1 and further supports its patentability. This conclusion is further borne out by the fact that the Helwig et al. '879 patent that issued in 1999 followed the long taught principles of the Heidweiller patent and explicitly recites providing glass fibers at a percentage

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above 50% (note "50 to 90% glass" at col. 2 line 31). This is further evidence of the unobviousness of the present invention as set forth in claim 1. Based upon all the evidence of record it is very clear that claim 1 patentably distinguishes over the Heidweiller patent and should be allowed.

Claims 2-8, 11, 13-18 and 21 depend from claim 1 and are allowable over the Heidweiller patent for the same reasons. Further, these claims include additional limitations that provide added support for their allowability. For example, claim 13 explicitly provides that the base web includes glass fibers in an amount of about 25 to about 40% by weight of the fibers. This range with a maximum of about 40% is significantly removed from the 50% or above range explicitly taught in the Heidweiller patent. This is a significant distinction which must not be overlooked by the Office.

Claims 1 and 6 also patentably distinguish over U.S. Patent 5,935,879 to Helwig et al. At column 6 lines 33-36, the Helwig '879 patent explicitly states that reinforcement fibers are provided at a range "from about 50% to about 95 % by weight". Accordingly, the Helwig patent, like the Heidweiller patent, teaches away from the present invention as set forth in claim 1 and claims 1 and 6 should be allowed.

Claims 19, 22 and 23 very clearly patentably distinguish over the Heidweiller patent when considered in combination with U.S. Patent 6,267,843 to Helwig et al. As noted above with respect to claim 1, the Heidweiller et al. patent

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explicitly teaches that a web must include 50% or more glass fibers. In contrast, the present invention as set forth in claim 1 from which claim 19 depends as well as in independent claim 22 from which claim 23 depends refers to a base web including about 10 to less than 50% by weight glass fibers. As such, it is very clear that the Heidweiller patent explicitly teaches away from the present invention. Further, the failure of those skilled in the art to develop the present invention for over 30 years since the Heidweiller patent issued provides strong evidence that this distinction is not an obvious modification and as such is a patentable one.

At column 2 line 31, the Helwig et al. '843 patent refers to a mat including "50 to 90% glass". This glass range is consistent with that set forth in the Heidweiller patent which as noted above teaches away from the invention set forth in claims 19, 22 and 23. Thus, the secondary reference to Helwig et al. '843 fails to address the shortcoming noted above with respect to the primary Heidweiller reference and any rejection based upon the combination of these two references must fail. Claims 19, 22 and 23 patentably distinguish over this art and should be allowed.

Claims 20 and 24 very clearly patentably distinguish over the Heidweiller patent when considered in combination with U.S. Patent 5,800,675 to Kinsley, Jr. Claim 20 depends from claim 1 and therefore explicitly requires a base web including about 10 to less than 50% by weight glass fibers. Similarly, like claim

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1 claim 24 recites a base web including a bat 10 of less than 50% by weight glass fibers. This is in total contrast to the explicit teachings of the primary reference to Heidweiller which refer to a web or mat of 50% or more glass fibers.

The secondary reference or Kinsley, Jr. patent relates to a process for making a paper based product containing a binder. That product does not include glass fibers and, accordingly, this secondary reference does nothing to address or alleviate the shortcoming noted above with respect to the primary reference to Heidweiller. As such, this combination of references provides no basis whatsoever for the rejection of claims 20 and 24 which should be allowed.

It is noted that the Office argues that, "one would have been motivated to create a mat having a base web comprising from 10 to less than 50% by weight of glass fibers in order to create a mat with suitable compressive strength." However, the Office's position is supported neither by the case law nor the facts. As noted above, the *In re Boesch* decision is applicable only where the claimed range overlaps the range disclosed in the prior art. There is no such overlap in the present case and the Office has acknowledged this on the record. Further, the passage of 30 years from the issuance of the Heidweiller patent to the development of the invention set forth in claims 20 and 24 clearly establishes either a lack of motivation or the unobviousness of the presently claimed invention. As such, the patentability of claims 20 and 24 is clearly established.

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Finally, claim 12 very clearly patentably distinguishes over the Helwig et al. '879 patent when considered in combination with U.S. Patent 6,365,001 to Helwig et al. Claim 12 depends from claim 1 which explicitly refers to a base web including about 10 to less than 50% by weight glass fibers. As noted above the Helwig '879 patent explicitly refers to a fiber mat containing about 50% to about 95% by weight glass fibers. Similarly, the secondary reference to Helwig '001 explicitly teaches a mat comprising 50 to 90% glass fibers (see column 2 lines 31-32). Thus, both of the references cited by the Office in rejecting the claim explicitly refer to mats incorporating greater than 50% glass fibers. Consequently both of the cited references explicitly teach away from the present invention.

While the Office argues it would have been obvious to alter the weight percentage of glass fiber, polyethylene terephthalate fibers, polyvinyl alcohol and secondary binder to optimize the ranges to create a nonwoven web with high strength, dimensional stability and compressive strength, the cited references do not support such a conclusion. It must be appreciated that one cannot simply ignore the explicit teachings of the references in this process. Yes, it may rightfully be argued that it would have been obvious to alter the percentage of glass fiber provided in the mat within the explicitly recited range of 50 to 95% but in no event would one skilled in the art be taught by these references to ignore their explicit teachings which limit a mat to greater than 50% glass fibers. Both the Helwig et al. '879 and Helwig et al. '001 patents explicitly teach away from the present invention. The provision of a mat with less than 50% glass fibers as

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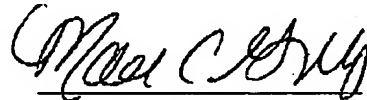
set forth in present claim 12 is simply contraindicated by the explicit teaching of these references and any rejection of claim 12 based upon these references is improper and should be withdrawn.

In view of the above arguments, it is clear that a prima facie case of obviousness has not been established. As such, the 35 USC §103 rejections of claims 1-8 and 11-24 should be withdrawn.

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In summary, all the pending claims patentably distinguish over the prior art and should be formally allowed. Upon careful review and reconsideration it is believed the Office will agree with this proposition. Accordingly, the early issuance of a formal Notice of Allowance is earnestly solicited. If any fees are required pertaining to this request, Applicant requests that they be charged to Deposit Account No. 50-0568.

Respectfully submitted,



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